

FIGURE 1

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WELDER PATENT
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The diagram illustrates a welder system architecture. It features a grid of 24 MOSFETs, labeled Q1 through Q24, arranged in 4 rows and 6 columns. Each MOSFET is connected to a common source (60) and a common drain (51). The gates of the MOSFETs are connected to a control circuit (54) via a network of resistors (57) and capacitors (58). The control circuit includes a 5V supply (51), a 10k resistor (54), and a 100nF capacitor (58). The MOSFETs are connected to a common drain (51) and a common source (60). The gates of the MOSFETs are connected to a control circuit (54) via a network of resistors (57) and capacitors (58). The control circuit includes a 5V supply (51), a 10k resistor (54), and a 100nF capacitor (58). The MOSFETs are connected to a common drain (51) and a common source (60). The gates of the MOSFETs are connected to a control circuit (54) via a network of resistors (57) and capacitors (58). The control circuit includes a 5V supply (51), a 10k resistor (54), and a 100nF capacitor (58).

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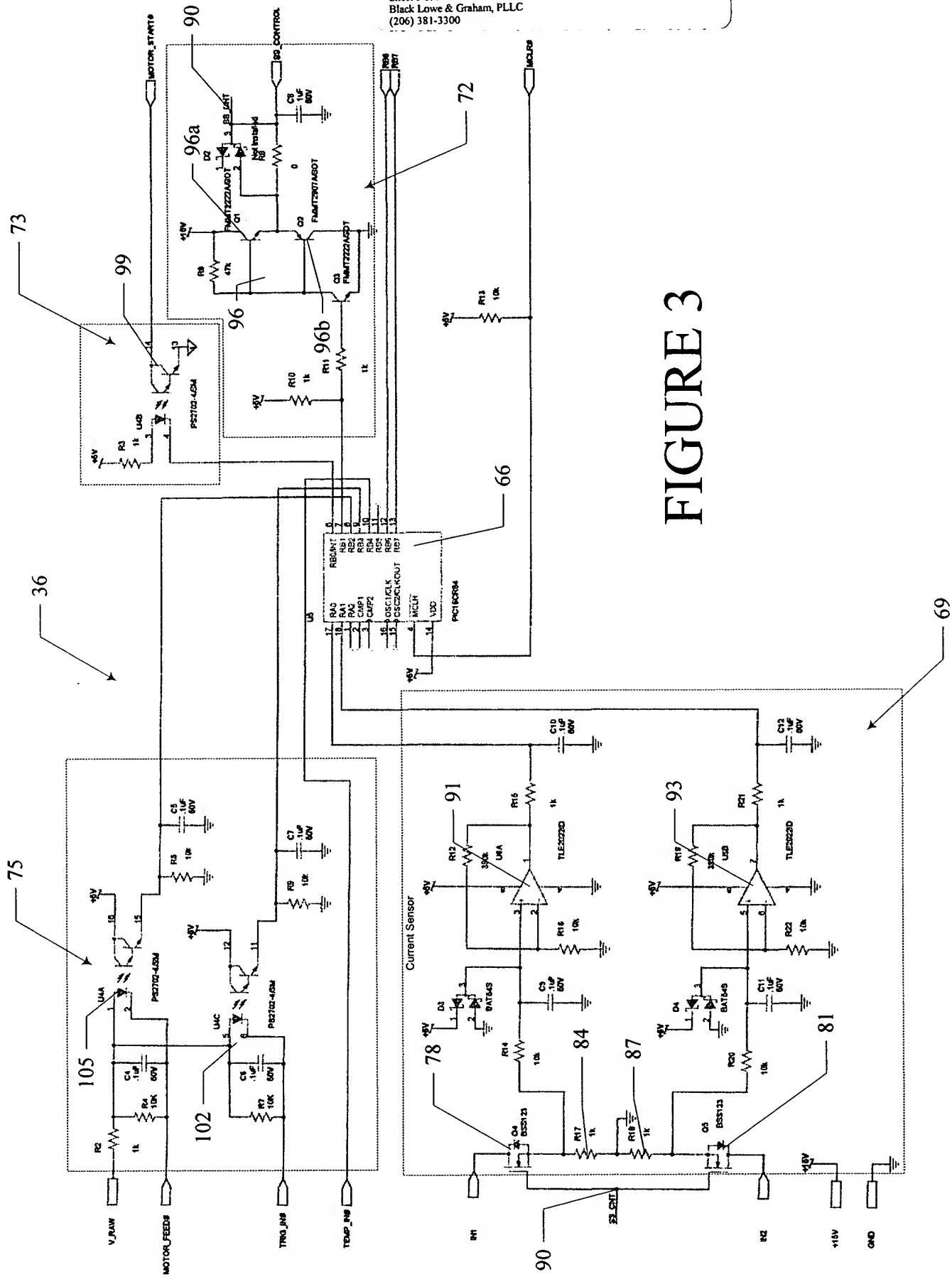
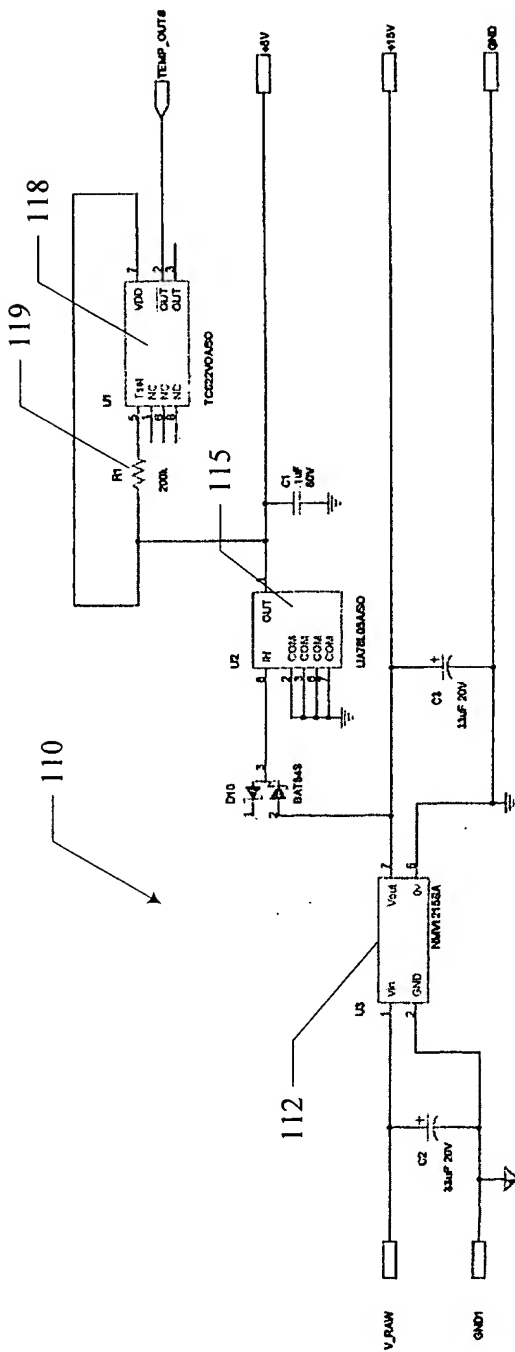


FIGURE 3



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LN-25 Truth Table

Motor Feed	Inputs			Outputs		
	Over Cur 1	Over Cur 2	Over Temp	Trigger On	Motor	SS_Control
T	X	X	X	X	ON	OFF
F	T	X	X	X	OFF	OFF
F	F	T	X	X	OFF	OFF
F	F	F	T	X	OFF	OFF
F	F	F	F	F	OFF	OFF
F	F	F	F	T	ON	ON

a b c d e q r

124
126
128
130
132
134

Notes:

When turning both the Motor AND SS_Control ON:

1. Motor = OFF (ensure the Motor is not on prior to closing the relay)
2. Delay 50 mSec
3. SS_Control = ON
4. Delay 50 mSec
5. Motor = ON

When turning both the Motor AND SS_Control OFF:

1. Motor = OFF
2. Delay 50 mSec
3. SS_Control = OFF

When turning on only the Motor (and NOT the SS_Control)

1. SS_Control = OFF (ensure the relay is open prior to starting the motor)
2. Delay 50 mSec
3. Motor = ON

FIGURE 5